HEAT SHIELD
FABRIC SPECIFICATION

Galebreaker®
INDUSTRIAL
Your Guard Against the Elements

galebreaker.com

FABRIC SPECIFICATION

HS180-SGY

FABRIC CODE	COLOUR	COLOUR REFS. (nearest)	
		RAL	Pantone
HS180-SGY	Silver	9022	422

	PARAMETER / CHARACTERISTIC		STANDARD
1	Fabric	Vamac® material on a polyester base cloth	
2	Weight	870 (+/-44) g/m²	
3	Coating	UV and ozone resistant	
4	Solidity	Solid	
5	Tensile Strength	Warp & Weft >=500 N	EN ISO 1421/1 1998
6	Tensile Strength Elongation	Warp 2.3%, Weft 3.9%	EN ISO 1421/1 1998
7	Tear Strength	Method A (tongue) - Warp 563 N, Weft 524 N Method B (trouser) - Warp 311.3 N, Weft 285.8 N	BS EN ISO 4674-1:2003
8	Thickness	0.7 (+/-5%) mm	
9	Temperature Range	-30/+180°C	
10	Max. Temperature Protection	+180°C	
11	Max. Radiation Protection	6.3 KW/m² (1950 BTU/Hr/ft²) – long term 10 KW/m² (3100 BTU/Hr/ft²) – 1 hour	
12	Heat Flux Reduction	6.3KW/m2 (300mm behind shield) – 85.7% 10 KW/m2 (300mm behind shield) – 84.8%	

Incident Heat Flux 6.3 KW/m²

Table 1 and Figure 2 show the heat flux measurement results when the shield was subjected to 6.3 KW/m² for a duration of 220 minutes.

Distance behind shield (mm)	Heat flux without heat shield (KW/m²)	Heat flux behind fabric shield (KW/m²)	% Heat flux reduction compared with the front face of the shield
150	5.45	0.95	84.9 %
300	4.64	0.90	85.7 %
450	3.81	0.79	87.5 %
600	3.47	0.67	89.4 %

Table 1 - Heat flux measurements and % reductions

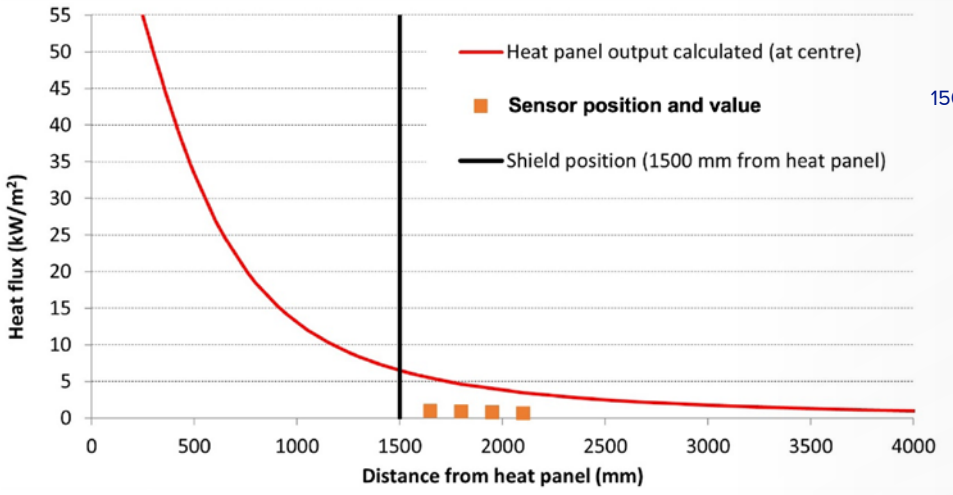


Figure 1
Heat flux measurements, 1500mm from radiant panel

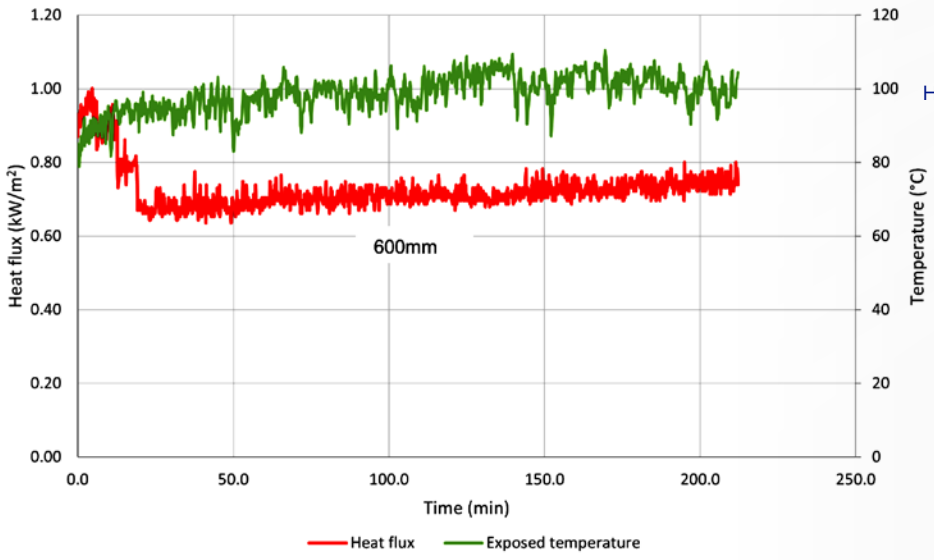


Figure 2
Heat flux level behind shield 6.3 KW/m² for 220 minutes

Incident Heat Flux 10 KW/m²

Table 2 and Figure 4 show the heat flux measurement results when the shield was subjected to 10 KW/m2 (i.e., 1150mm distance from the radiant panel) for a duration of 60 minutes.

Distance behind shield (mm)	Heat flux without heat shield (KW/m²)	Heat flux behind fabric shield (KW/m²)	% Heat flux reduction compared with the front face of the shield
150	8.37	1.7	83.0 %
300	7.34	1.52	84.8 %
450	5.78	1.27	87.3 %
600	4.89	1.1	89.0 %

Table 2 - Heat flux measurements and % reductions

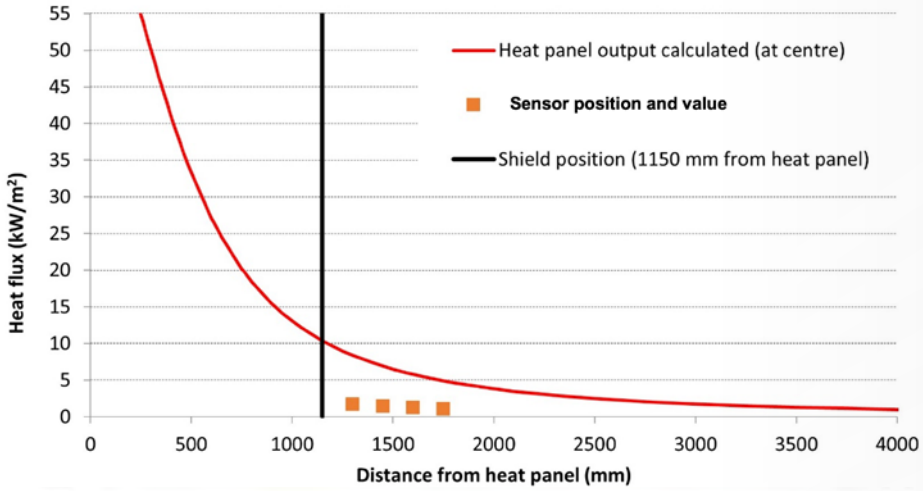


Figure 3
Heat flux measurements, 1150mm from radiant panel

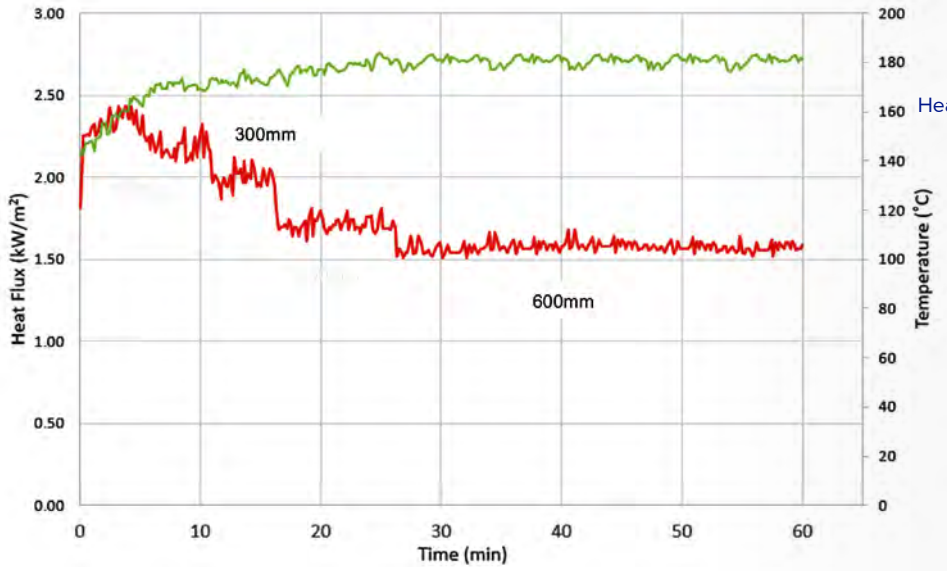


Figure 4
Heat flux level behind shield 10 KW/m² for 60 minutes

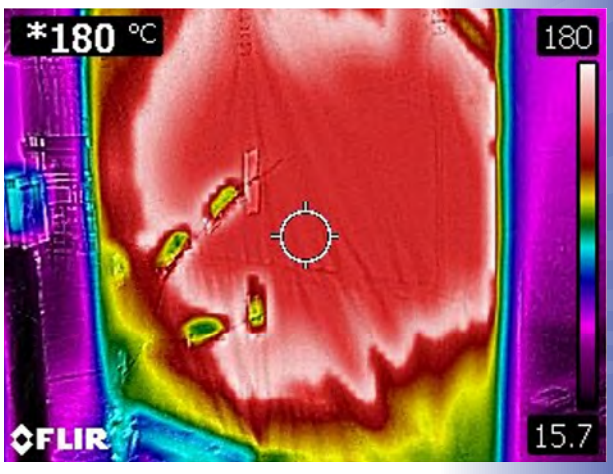
Test Procedure

The heat shield specimens were subjected to an incident heat flux from a radiant source. The heat flux profile was determined prior to the test and the shield positioned a distance from the source to achieve the required flux level.

The heat flux sensor positioned on the centre line of the back of the shield at the indicated distances from its face logged the heat flux values upon achieving equilibrium.

Thermocouples mounted to the front of the shield (central and offset) record the front surface temperatures of the shield.

Heat Map of shield during test.



Test carried out at BRE Global Ltd.

Contact Galebreaker on +44 (0) 1531 637900

Galebreaker House,
New Mills Industrial Estate,
Ledbury, Herefordshire, HR8 2SS
United Kingdom

E: marketsupport@galebreaker.com
www.galebreaker.com/industrial

03.2022

Galebreaker®
INDUSTRIAL
Your Guard Against the Elements